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EXAMINER				
WONG, ERIC TAK WAI				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/787,529

**Applicant(s)**

SHIELDS ET AL.

**Examiner**

ERIC WONG

**Art Unit**

3693

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-85/86)  
Paper No(s)/Mail Date 2/26/2004
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Inventor's Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Claims 1-30 are pending. The following is a non-final first Office action on the merits of claims 1-30.

#### ***Drawings***

2. Figures 1-5 should be designated by a legend such as –Prior Art– because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 10-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It seems that part of the claim is missing due to a typo since it would not make sense to base the initial clearing statement on both the initial settlement amount and revised settlement amounts. Examiner understands the claim as follows:

The method of claim 1, wherein receiving by the spot market clearing house data sent from the spot market operator further comprises receiving data indicative of at least one revised settlement amount for at least one trade in a period prior to the predetermined period; and wherein the initial clearing statement is based on the data indicative of an initial settlement

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amount and the revised clearing statement is based on the data indicative of the revised settlement amount.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 24-30 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. A "spot market clearing house node" as recited in the claims is software per se and thus not patent eligible subject matter.
5. Software per se does become patentable when it is claimed in combination with computer-readable media. Thus if an inventor submits a patent application with a claim to computer software standing alone, the claim will be rejected as unpatentable. If the claim were to describe the software as stored on a magnetic or optical disk, or on a generic "computer-readable media," the claim would be patentable. Alternatively, the software or data structures can be claimed in combination with a computer or processor that operates on the data structure or utilizes the software.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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6. Claims 1-8, 10-11, 24-25 rejected under 35 U.S.C. 102(e) as being anticipated by Winter et al. (US Patent No. 7,085,739 B1).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

7. Regarding claim 1, Winter et al. teaches receiving by a spot market clearing house data sent from the spot market operator indicative of an initial settlement amount for at least one trade in a predetermined period; sending an initial clearing statement from the spot market clearing house to at least one clearing member based on the data indicative of the initial settlement amount; recording by the spot market clearing house a funds transfer in accordance with the initial clearing statement; after recording a funds transfer, receiving by the spot market clearing house data sent from the spot market operator indicative of a revised settlement amount for the trade, the data indicative of the revised settlement amount being different from the data indicative of the initial settlement amount; sending a revised clearing statement from the spot market clearing house to the clearing member based on the data indicative of the revised settlement amount; and recording by the spot market clearing house a funds transfer in accordance with the revised clearing statement (see column 7 lines 39-46 and column 10 lines 8-18). Examiner notes the spot operator acts as the market clearing house in the reference.

8. Regarding claim 2, Winter et al. teaches wherein the commodity comprises electricity (see column 4 lines 58-60).

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9. Regarding claim 3, Winter et al. teaches wherein the trades comprise real-time trades (see column 5 lines 24-35)
10. Regarding claim 4, Winter et al. teaches wherein the trades comprise day-ahead trades (see column 5 line 65 - column 6 line 15).
11. Regarding claim 5, Winter et al. teaches wherein the predetermined period comprises one trading day (see column 7 lines 39-40).
12. Regarding claim 6, Winter et al. teaches wherein the data indicative of an initial settlement amount comprise aggregated data indicating a net settlement amount for a participant in the spot market (see column 7 lines 39-56).
13. Regarding claim 7, Winter et al. teaches wherein the data indicative of an initial settlement amount relate to an executed trade (see column 7 lines 39-56).
14. Regarding claim 8, Winter et al. teaches wherein the data indicative of revised settlement amounts are based on power line measurements (see column 9 line 66—column 10 line 18).
15. Regarding claim 10, Winter et al. teaches receiving data indicative of at least one revised settlement amount for at least one trade in a period prior to the predetermined period; and wherein the initial clearing statement is based on the data indicative of an initial settlement amount and [the revised clearing statement is based on] the data indicative of the revised settlement amount (see column 9 line 66 - column 10 line 18).
16. Regarding claim 11, Winter et al. teaches wherein the data indicative of the initial settlement amount and the data indicative of the revised settlement amount comprises a net settlement amount, the net settlement amount comprising a single number that the participant owes to or is owed from the spot market operator (see column 9 line 66 - column 10 line 18).

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17. Regarding claim 24, the claim is rejected for the same reason as claim 1.
18. Regarding claim 25, the claim is rejected for the same reason as claim 2.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. Claims 9, 12-20, 26-27, 29-30 rejected under 35 U.S.C. 103(a) as being unpatentable over Winter et al. in view of Shimko et al. (US Patent No. 7,139,730 B1).
20. Regarding claim 9, Winter et al. does not explicitly teach determining by the spot market clearing house a performance bond for at least some of the participants based on the trades. Shimko et al. teaches calculating performance bonds by a clearing house for participants based on their trades (see column 3 lines 14-22). It would have been obvious to one skilled in the art at the time of invention to modify the clearing house of Winter et al. with calculating performance bonds as taught by Shimko et al. One skilled in the art would have been motivated to make the modification for the benefit of reducing risk by holding anticipatory collateral.
21. Regarding claim 12, Winter et al. teaches receiving by the spot market clearing house data indicative of settlement amounts for the trades of a participant in the predetermined period; aggregating data indicative of settlement amounts for trades to indicate a net settlement amount for the participant; sending a clearing statement from the spot market clearing house to at least one clearing member based on the aggregated settlement amounts; and recording by the spot market clearing house a funds transfer in accordance with the clearing statement.

Winter et al. does not teach determining performance bonds and including the performance bonds in the clearing statement. Shimko et al. teaches determining performance bonds (see column 10 lines 2-6). It would have been obvious to one skilled in the art at the time of invention to modify the clearing house of Winter et al. with calculating performance bonds as taught by Shimko et al. One skilled in the art would have been motivated to make the modification for the benefit of reducing risk by holding anticipatory collateral. Examiner asserts it was old and well known in the art at the time of invention to include margin in a clearing statement. It would have been obvious to one of ordinary skill in the art at the time of invention to modify Winter et al. with including the performance bonds on the statement. One skilled in the art would have been motivated to make the modification for the benefit of convenience.

Winter et al. does not teach clearing trades from a plurality of spot market operators. Shimko et al. teaches aggregating and clearing trades from multiple counterparties (see column 5 lines 62-66). This is equivalent to clearing trades from multiple spot market operators. Therefore, it would have been obvious to one of ordinary skill in the art to modify the clearing house of Winter et al. to clear trades from multiple spot market operators. One skilled in the art would have been motivated to make the modification for the benefit of convenience.

22. Regarding claim 13, Winter et al. teaches wherein the commodity comprises electricity (see column 4 lines 58-60).

23. Regarding claim 14, Winter et al. teaches wherein the trades comprise real-time trades (see column 5 lines 24-35)

24. Regarding claim 15, Winter et al. teaches wherein the trades comprise day-ahead trades (see column 5 line 65 - column 6 line 15).

25. Regarding claim 16, Winter et al. teaches wherein the predetermined period comprises one trading day (see column 7 lines 39-40).



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26. Regarding claim 17, Winter et al. teaches aggregating settlement amounts indicating a net settlement amount for the participant.

27. Regarding claim 18, Winter et al. does not teach determining a performance bond by analyzing aggregated settlement amounts. Shimko et al. teaches determining a performance bond by analyzing aggregated settlement amounts (see column 5, lines 62-67). It would have been obvious to one of ordinary skill in the art at the time of invention to modify the clearing house of Winter et al. to include determining a performance bond by analyzing aggregated settlement amounts. One skilled in the art would have been motivated to make the modification for the benefit of convenience.

28. Regarding claim 19, Winter et al. teaches wherein the spot market operator sends data indicative of initial settlement amounts for the trades in the predetermined period and sends revised settlement amounts for the trades in a period later than the predetermined period; wherein receiving the settlement amounts comprises receiving the data indicative of the initial settlement amounts; wherein aggregating the settlement amounts comprises aggregating the data indicative of the initial settlement amounts; wherein sending a clearing statement is based on the data indicative of the initial settlement amounts; and further comprising: receiving by the spot market clearing house data indicative of at least one revised settlement amount for at least one of the trades; and sending a revised clearing statement from the spot market clearing house to the clearing member based on the data indicative of the revised settlement amount (column 10 lines 8-18).

29. Regarding claim 20, Winter et al. teaches wherein the spot market operator sends data indicative of the initial settlement amounts for the trades and sends data indicative of revised settlement amounts for the trades after recording the funds transfer; wherein receiving the settlement amounts comprises receiving, from the plurality of spot market operators, data

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indicative of initial settlement amounts for the trades of the participant in the predetermined period and data indicative of at least one revised settlement amount for a trade in a period prior to the predetermined period; and wherein aggregating the settlement amounts comprises aggregating the data indicative of the initial settlement amounts and the revised settlement amount; wherein sending a clearing statement is based on the initial settlement amounts (see column 10 lines 8-18).

30. Regarding claim 26, the claim is rejected for the same reason as claim 9.
31. Regarding claim 27, Winter et al. does not teach determining a number of days to collateralize; determining positive exposures of trades for a participant with at least one spot market operator for most recent days trading equal to the number of days to collateralize; and statistically analyzing the determined positive exposures. Shimko et al. teaches collateralizing for a short time period and statistically analyzing the determined positive exposures. Therefore, it would have been obvious to one of ordinary skill in the art to modify the clearing house of Winter et al. with determining a number of days to collateralize; determining positive exposures of trades for a participant for most recent days trading equal to the number of days to collateralize; and statistically analyzing the determined positive exposures. One skilled in the art would have been motivated to make the modification for the benefit of reducing risk.
32. Regarding claim 29, the claim is rejected for the same reason as claim 12.
33. Regarding claim 30, the claim is rejected for the same reason as claim 19.
34. Claims 21-23 rejected under 35 U.S.C. 103(a) as being unpatentable over Winter et al. in view of Shimko et al., further in view of Official Notice.

35. Regarding claim 21, Official Notice is taken that determining a performance bond for a current day of trading was old and well known in the art at the time of invention (eg. daily margin call). It would have been obvious to one of ordinary skill in the art at the time of invention to modify the clearing house of Winter et al. with determining a performance bond for a current day of trading. One skilled in the art would have been motivated to make the modification for the benefit of reducing risk.

36. Regarding claim 22, Winter et al. does not teach determining a number of days to collateralize; determining positive exposures of trades for a participant with at least one spot market operator for most recent days trading equal to the number of days to collateralize; and statistically analyzing the determined positive exposures. Shimko et al. teaches collateralizing for a short time period and statistically analyzing the determined positive exposures. Therefore, it would have been obvious to one of ordinary skill in the art to modify the clearing house of Winter et al. with determining a number of days to collateralize; determining positive exposures of trades for a participant for most recent days trading equal to the number of days to collateralize; and statistically analyzing the determined positive exposures. One skilled in the art would have been motivated to make the modification for the benefit of reducing risk.

37. Regarding claim 23, Winter et al. does not teach determining position exposures of trades comprises determining position exposures of trades for a participant with multiple spot market operators. Shimko et al. teaches determining position exposures of trades for a participant with multiple counterparties (see column 3 lines 14-22). Therefore, it would have been obvious to one of ordinary skill in the art to modify the clearing house of Winter et al. with determining position exposures of trades for a participant with multiple spot market operators. One skilled in the art would have been motivated to make the modification for the benefit of convenience.

38. Claim 28 rejected under 35 U.S.C. 103(a) as being unpatentable over Winter et al. in view of Freeman et al. (US Patent No. 6,450,407 B1).

39. Regarding claim 28, Winter et al. and Shimko et al. do not expressly teach wherein the data indicative of the initial settlement amount is based on an estimate of an amount of commodity transferred corresponding to the executed trade; and wherein data indicative of the revised settlement amount is based on a measured amount of the commodity transferred. Winter et al. does, however, does teach that there is a difference between the estimated amount of a commodity transferred corresponding to an executed trade and the measured actual amount of the commodity transferred. Freeman et al. teaches making a first payment based on an estimate then making a second payment that is based on an actual amount, then settling additional amounts due to be paid or refunds due to be reimbursed to the participant (see claim 36). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the clearing house of Winter et al. further to include wherein the data indicative of the initial settlement amount is based on an estimate of an amount of commodity transferred corresponding to the executed trade; and wherein data indicative of the revised settlement amount is based on a measured amount of the commodity transferred. One skilled in the art would have been motivated to make the modification for the benefit of obtaining payment earlier (i.e. to earn interest on).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC WONG whose telephone number is (571)270-3405. The examiner can normally be reached on Monday-Friday 9:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Kramer can be reached on (571) 272-6783. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James A. Kramer/  
Supervisory Patent Examiner, Art Unit 3693

Eric Wong  
Examiner  
Art Unit 3693

Feb 2008